METHOD OF SURFACE PRETREATMENT BEFORE SELECTIVE EPITAXIAL GROWTH

ABSTRACT OF THE INVENTION

A method of surface pretreatment before selective epitaxial growth is provided. A semiconductor substrate having metal-oxide- semiconductor devices formed thereon is provided, and a lightly dry etching process with a carbon-free plasma source is performed to remove a portion of the semiconductor substrate. Then, a selective epitaxial growth process is performed to form a semiconductor layer on the semiconductor substrate. A clean surface for selective epitaxial growth is provided by the lightly dry etching process, which can resolve the undercut issue and surface roughness.